

of BART or whether liability without fault is sought to be imposed on BART, except to the extent such indemnity is void or unenforceable under applicable law, or where the damage results from negligent or willful misconduct by a "BART Indemnitee" and was not contributed to by any omission of MFS. MFS is not obligated to indemnify BART to the extent of BART's own negligence or willful misconduct.

In the BART documents, both parties waived consequential, incidental, speculative, and indirect damages, lost profits, and the like. The Agreement includes as an exhibit the form of license to be used by MFS in marketing excess capacity to third-party customers, the "User Agreement." Interestingly, it requires the user to insure MFS, exculpate MFS from liability for service interruptions, and indemnify MFS. Inasmuch as BART is also named as a party to the Agreement, it is interesting to note that the user is not required to also insure, indemnify, and exculpate BART directly. Although arguably BART is protected by MFS's obligations under the BART-MFS document, if a state or local agency were to use the User Agreement as a model, it would be advisable to make the user's obligations also run directly in favor of the public agency. That way, the public agency would have another layer of protection in the event of bankruptcy or other inability to perform by its licensee.

6.2.3 Tort Actions

There is also a possibility of tort actions either directly or proximately resulting from the private sector's activities. By allowing one or more vendors access to the right-of-way, as discussed earlier, the public agency runs the risk that hazards may be created in the safe operation of the roadway. Again, multiple vendors complicate this problem.

Additionally, tort actions may arise out of system failure. Generally, public agencies can expect vendors granted access to the public right-of-way to request limitations on their exposure to consequential damages. In the Massachusetts documentation, however, there is an express statement that the liability of the licensees, present and future, shall not be limited. In the Missouri documents, MHTC is not responsible for any liability incurred by the fiber-optics contractor. The contractor then assumes responsibility for all injury or damage for any *negligent* acts or omissions by it in services rendered under the agreement and agrees to "save harmless" MHTC for any expense or liability arising out of such negligent acts or omissions of the fiber-optics contractor, its contractors, subcontractors, agents, etc.

In the Ohio Turnpike Agreement, the Commission is indemnified for bodily injury and property damage, but such indemnity is limited to the extent of the licensee's negligence. The Commission is only liable to the licensee to the extent that damage to its system is caused by the Commission's "gross" negligence.

6.2.4 Related Issues

In the context of public-private partnerships, issues of the scope of sovereign immunity also need to be addressed. Where a "joint venture" is created between the state agency and the private entity, the state agency may be held liable as a partner for part or all of any liability of the partnership. A joint venture agreement may be construed to waive statutory limitations on the public agency's liability, and in some states, such as Colorado, that liability may not qualify to be paid from the state's self-insurance fund.

An additional issue associated with liability is whether adequate surety for the vendor's obligations can be obtained at a reasonable cost in the marketplace.

In the Missouri documents, the contractor agrees to maintain insurance for bodily injury and property damage, product, and completed operation (with underground property damage endorsement, commercial automobile insurance, and worker's compensation insurance). Holders of sub-easements from the fiber-optics contractor are required to possess the same level of insurance that the fiber-optics contractor has agreed to provide.

The Ohio Turnpike Agreement documents require the licensee to maintain specified levels of insurance and to hold the Turnpike Commission harmless from losses, costs, claims, damages, and expenses arising out of or related to any claims as a result of the Agreement. The Commission is specifically granted the right to its defense by its own counsel and to maintain control over any claims made against it.

Summary Table of Allocation of Liability	
CASE STUDY	APPROACH TO ALLOCATION OF LIABILITY
Missouri	Private party: responsible for all warranties and performance and/or damage; indemnifies state for negligence. State: indemnifies private party for facilities damage caused by state; No liability for consequential damages
City of Leesburg	City has no liability for all service interruptions or consequential damages, and contractors' contracts with customers must exculpate City from liability. Private party indemnifies City for tort damages.
Maryland	Private party is strictly liable to indemnifying state for performance of services under contract. State's liability is limited to state caused damage to facilities. No liability for consequential damages.
Ohio Turnpike Commission	Broadly drafted indemnity from private party Commission's liability limited to its gross negligence commission. All contracts must relieve Commission of liability for consequential damages.
BART	Broad indemnity from BART to MFS; waiver of liability for consequential damages by both parties

6.3 OTHER CONTRACT ISSUES

Although the focus group emphasized the need for further research on liability and relocation, they recognized the importance of other contract issues. Restrictions on public agencies' procurement methods can create a significant nontechnical barrier. For example, restrictions on a state's ability to engage in sole source procurement or to request low-bid proposals (based on agency specifications) can significantly affect private sector interest and the speed with which a project can be developed.

Several other contractual issues were also addressed including obligations for future system upgrading and modification, intellectual property rights, and equity issues- "fair" distribution of communications infrastructure and financial benefits among social groups and jurisdictional entities.

6.3.1 Procurement Issues

Exclusivity is one issue in determining who will participate in shared resource projects; a concomitant issue is the procurement process-screening and selecting partners, and structuring the procurement. Both legal and practical factors play roles in the process.

The issues are virtually identical to those associated with ITS procurements generally. The public agency must determine whether the procurement must be done on a competitive basis or whether it has the authority to request proposals and negotiate the arrangement. Moreover, public agencies differ in their ability to negotiate terms once a private partner has expressed interest and tentatively offered compensation (cash or in-kind). For example, Maryland had the flexibility to extend a counter-offer when MCI's initial response to the RFP fell short of the listed terms and thus was able to close a deal that did not meet all of the technical requests in the initial RFP.

If the public agency elects to request a low-bid proposal based on specifications developed by the agency, it will probably need to consult with private industry in developing those specifications. This may create a problem in that the private entity that helps develop specifications may be precluded from bidding. Allowing that entity to participate may create a perception of anti-competitive behavior; other bidders may argue that the specifications necessarily favor the entity that helped the public agency develop them.

Whether the agency should obtain services from one vendor or multiple vendors is another early consideration. Maryland has divided its statewide effort into at least two procurements, one for the Baltimore-Washington Corridor and a second, to be issued later, for the rest of the state. Obviously, considerations related to exclusivity play a role here. Bundling services into one proposal necessarily favors the larger vendors. Dividing shared resource projects into multiple discrete projects could promote competition, but this benefit must be offset against the problems associated with broad access to the right-of-way and greater managerial complexities.

Massachusetts has addressed this issue by providing for a lead company agreement in which the first permit applicant has responsibility for constructing all of the Commonwealth's "component," but subsequent permittees must share the cost. Further, the lead company is responsible for all maintenance, on a shared cost basis with other participants. Initially the

right-of-way is open to all applicants. Thereafter a lead company is designated and notice is published, and other potential participants have several weeks to enter into participant agreements. Those who fail to take advantage of the opportunity early, however, may be shut out later.

Many states have received unsolicited proposals from private entities offering to provide cooperation on goods or services for communications or transportation projects; however, state legislation often precludes entering into such arrangements without first subjecting the proposals to competition. Colorado has concluded that its "sole-source" procurement authorization, set forth in C.R.S. §§ 24-103-205 and 3-205.1 permits a procurement without competition *only* if the goods and services proposed are available from only one supplier, even if the private entity is willing to make a substantial contribution as part of a partnership effort. In developing its agreement with Concorde Communications for pay phones, the department called 30 pay-phone vendors to determine interest in the procurement. Only Concorde was willing to provide service at all locations; therefore, a sole-source procurement was authorized.

6.3.2 Modification

There are two facets to modification: technological upgrading to keep abreast of technical improvements, and expansion of capacity to meet subsequent needs (unforeseen or anticipated but not included in the initial project). A drawback to entering into arrangements sooner rather than later is that telecommunications technology is changing rapidly. Public agencies considering a shared resource project in which in-kind services are provided as consideration may want to consider requiring that the vendor provide upgrades and updates to technology as they become generally accepted in the industry. Technology aside, the public agency may not be able to envision all the capabilities it may desire in the future at the time the arrangement is negotiated and thus may find itself at some later date severely constrained by insufficient communications capacity. Care should be taken not to unduly restrict future options. At the same time, care must be exercised to not burden private partners with essentially open-ended obligations that might cause them to withdraw their offer to participate.

The agreement between Missouri and DTI calls for the installation of additional conduit in urban areas for future expansion. Similarly, the Maryland RFP calls for a multi-fiber cable for current use and spare capacity to handle local communications and future requirements. While such provisions for ensuring future capacity do not directly address system modification to upgrade technology, they do reduce the risk of extensive reconstruction to accommodate future ITS uses. Capacity enhancements are probably easier to specify and estimate (in dollar terms) than as-yet-undeveloped technological improvements.

6.3.3 Intellectual Property Issues

Sorting out the intellectual property rights in a shared resource project may be extremely complicated. It may be difficult to distinguish prior "Party Intellectual Property" from property arising during the performance of the contract. Where complex in-kind ITS services are requested in return for access to the right-of-way, the allocation of rights in technology may be particularly important. The documentation for the Idaho Storm Warning System project (Stormwarn) and the Idaho Out-of-Service Verification project (OOS), both of which are multi-party IVHS partnership agreements, contain intellectual property provisions essentially following the federal guidelines. Even where ITS services are not part of the initial shared resource agreement, intellectual property concerns arise if the public agency contemplates installation of ITS facilities in the future. The private communications facilities may need to interconnect with public ITS facilities or services, raising concerns about granting the public access to private, proprietary, communications protocols. This concern may be reduced if the shared resource agreement provides separate fiber for the public and private parties.

In addition, the public agency needs to be concerned with its ability to upgrade and update its facilities after the contractor's obligations end, and its ability to operate systems provided to it in the event that the contractor defaults under the agreement. Typically, the vendor will not want to give the public agency access to its proprietary intellectual property. This issue may be addressed through the structuring of an intellectual property escrow agreement.

Finally, the public agency will certainly want to address any required restrictions on the private sector's use of data generated as a result of the shared resource project. Again, this issue should be clearly addressed in contractual arrangements associated with the project.

6.3.4 Social-Political Issues

Most-Favored-Community Issues

In some communities, there may be a perception that private entities are inclined to offer a more favorable arrangement to communities that hold out in restricting access to their right-of-way for a longer period of time (i.e., the last link in the

network can exact the highest price). In fact, officials from several of the jurisdictions interviewed in this study indicated that this perception is accurate. This issue may be addressed by inserting a "most-favored community" clause in the contract documents. Under such a clause, the entity obtaining rights in the public right-of-way must provide the grantor of those rights with the same benefits, concessions, or payments as those offered by it to any other jurisdiction served by the network.

Since the market value of different links in the network may vary, based on telecommunications demand or property values in different areas, some situations may call for the most-favored-community clause to be limited to assuring equality of benefits with "similarly situated" jurisdictions rather than across-the-board financial parity among communities.

Geographic and Social Equity

Most private sector companies are rarely required to address issues of equity beyond nondiscriminatory pricing; they are generally allowed to eliminate unprofitable ventures and concentrate on profitable undertakings. But companies that provide what are considered public services (telephone, basic transportation, utilities) are often held to a different standard and may be required to provide services that are a burden rather than an asset to corporate operations. The public sector is expected to provide benefits equitably to its constituent population. This entails the distribution of services and the allocation of benefits. In the context of shared resource projects, equity issues include several related aspects:

- Distribution of communications capacity or revenue from shared resource projects among public sector agencies and uses, rather than restriction to transportation-related needs;
- Distribution of communications capacity evenly among political and geographical jurisdictions within the domain of the public agency negotiating the arrangement (e.g., sparsely as well as densely populated areas), even when not justified in a strict cost-benefit or profit-oriented framework;
- Distribution of cash revenues among projects and areas so that all members of the population receive "equal" benefits from the use of the public right-of-way by private partners (for example, rather than applying revenues only to transportation expenditures on infrastructure used by only part of the population).

Many of the participants in this study expressed a concern related to the most-favored-community issue—that private vendors may be interested in providing cable links only in or between densely populated areas, and not to rural areas or areas that are not commercially attractive.

In the case of access to state and interstate highways, a state may consider whether it has the right to require that the benefits of the shared resource arrangement be distributed equitably to the general public. The state or municipality may wish to require that benefits be provided to populations the private sector would not otherwise choose to serve (e.g., many telephone companies must maintain rural networks) to ensure equity, or because the public sector wants communication links there for its use.

Although Palo Alto has expressed interest in a city-wide communications system, private parties have focused on serving only more profitable areas. In June 1994 the City signed a non-shared resource agreement with MFS covering only the central business areas. Neither the agreement with MFS nor a separate agreement with Digital Equipment Corporation, which provides fiber links for some City services, provided fiber capacity to the low-profit business or residential areas of Palo Alto.

[Return to Index](#)



 U.S. Department of Transportation

APPENDIX: SUPPORTING DATA FOR COST COMPARISONS AMONG RIGHT-OF-WAY OPTIONS

This appendix presents the data from which Hess et al. (1988) selected representative cost figures and on which they based their cost comparisons among right-of-way types.

Given a wide range in values within categories, Hess et al. tried to select values for cost elements relatively *independently* of right-of-way type on the basis of additional detail or supporting sources, or a modal-type value. For cost elements dependent on right-of-way type, the authors generally chose the value provided by the carrier most experienced in that right-of-way type. Data indicated (one-time) cost ranges per mile as shown in the following table.

Data for Hess et al. Comparative Capital Costs		
CATEGORY	COST RANGE	VALUE SELECTED
Engineering	\$1,100-15,000	\$3,000
Right-of-way Acquisition:		
Railroad	\$8,000-\$16,000	\$12,000
Non-interstate highways - Urban	\$5,000 per year	\$31,250
Non-interstate highways - Rural	\$1,000-2,000 per year	\$6,250-12,500
Private land	\$240-5,160	\$1,000 (USA average = \$990)
Cable Procurement	\$16,600-28,200	\$16,600
Cable Installation		
Railroad	\$3,200-16,000	\$10,000
Private land	\$2,100-30,000	\$22,500
Non-interstate highway	\$2,400-30,000	\$27,500
Interstate freeway - median		\$10,000
Interstate freeway - fence line		\$16,000
Regenerators		\$15,200

[Return to Index](#)

EXHIBIT 3

STRATEGIC POLICY RESEARCH

7500 OLD GEORGETOWN ROAD SUITE 810 BETHESDA, MARYLAND 20814 (301) 718-0111 (301) 215-4033 fax
EMAIL spri-info@spri.com

Affidavit on Behalf of Minnesota Telephone Association CC Docket No. 98-1

**Strategic Policy Research, Inc.
Peggy L. Rettle
Harry M. Shooshan III
Joseph H. Weber**

The State of Minnesota ("the State") has filed with the Federal Communications Commission ("the Commission") a petition for a declaratory ruling regarding the effect of Sections 253 (a), (b), and (c) of the Telecommunications Act of 1996 ("the 1996 Act") on an exclusive Agreement that has been entered into between the Minnesota Department of Transportation ("MnDOT") and a selected party ("the Developer") to install fiber optic wholesale transport capacity in state freeway rights-of-way. The Developer will provide 20 percent of the lit fiber and ten dark fibers of its network at no cost for the State's general communications use and for use in the MnDOT's Intelligent Transportation System ("ITS"). Additionally, the Developer will offer capacity to other telecommunications carriers on a wholesale basis and may have an affiliate that will offer retail telecommunications service using the capacity installed.

In return, the State has granted to the Developer exclusive access to the rights-of-way along interstate highways in Minnesota for a period of ten years, with the first right to negotiate exclusivity for another ten-year period. The Agreement requires the Developer to install other entities' fiber as it installs its own. Once installation is complete, however, no other entities will have the right to install fiber for at least ten years. Additionally, only the Developer will have access to maintain its own and others' fiber along these rights-of-way for the period of exclusivity. This Agreement is especially significant because it marks the first time, with one exception, that the State of Minnesota has made available its longitudinal rights-of-way along the interstate highway system for

telecommunications applications and because the Agreement grants exclusive rights to a single entity.

Our appraisal of the Agreement between MnDOT and the Developer is that the arrangement is unnecessarily restrictive and anti-competitive. First, it is not necessary to grant exclusive access to a single entity in order to meet the State's concerns about public safety and minimization of traffic disruption. Second, granting exclusive access to previously unavailable rights-of-way would foreclose wholesale competition and, thus, impede retail competition along many of the most direct and convenient routes between cities in Minnesota. Moreover, the Agreement provides no adequate safeguards against a variety of potential anti-competitive abuses that could arise. We now address each of these points in more detail.

The State argues that an exclusive license is necessary to protect public safety when the right-of-way along interstate highways is used for telecommunications facilities. The State further asserts that "[t]he alternative to single-party exclusive access is no access at all" (Petition at 8). This judgment is inconsistent with the physical characteristics of modern fiber optic telecommunications facilities.

Prior to the development of this technology, telecommunications transmission facilities (other than radio, which does not require access to rights-of-way) were made up of various combinations of copper pairs and coaxial cable, with the latter predominant for longer distances. In both cases, the electrical properties of the medium required both that it be isolated from high-power electric lines and, more importantly, that it have amplifiers at frequent intervals, normally every mile or so. Furthermore, these amplifiers were complex devices which required considerable maintenance. The concept of installing a facility which would require accessibility on a periodic basis every mile or so along the highway was thought to be an unacceptable intrusion on the principal function of the highway — facilitating smooth and safe traffic flow. Indeed, federal guidelines prior to 1988, reflecting these factors, prohibited the installation of telecommunications facilities along interstate highways.

Fiber systems are very different, however. They are simple to install, needing only to be dropped into a narrow trench along the edge of the right-of-way. Fiber optic signals can travel long distances without amplification, typically twenty miles or more, and state of the art amplifiers are highly reliable. Thus the amount of intervention by telephone company repair personnel is quite

small. Furthermore, the systems have long physical lives, and can be economically upgraded by installing electronics at the terminals, again with little or no interruption of highway operations. Finally, the existence of electrical systems along the right-of-way does not cause any interference with optical signals.

Thus, if normal permitting procedures were allowed for the provision of fiber optic systems along interstate highways, there would only be the minimal impact of plowing or digging a narrow trench and dropping a cable into it upon installation. Considering the size and cost of such systems, and the ability to upgrade over time, such installations would take place infrequently.

In short, there is no more (and probably less) reason to restrict modern fiber systems from being installed in the rights-of-way of interstate highways than there is to restrict installation of telecommunications facilities (some of which may be copper wire cables) along trunk highways. A factually derived, carefully crafted and strictly enforced permitting policy should be more than sufficient to protect the public safety in both cases without the need for arbitrary restrictions or exclusive franchises. In our view, it is not necessary for either reasons of public safety or of minimizing traffic disruption, to restrict the installation of fiber systems in, and access to, the rights-of-way along interstate highways as this Agreement does. Thus, the State need not resort to the all-or-nothing policy regarding access to its rights-of-way that it asserts in its Petition.¹

We now examine the impact of MnDOT's grant of exclusive rights-of-way access on telecommunications competition in Minnesota. The model that the State has chosen is not competitively neutral, as the State claims. In fact, the grant of these exclusive rights would harm competition in both the wholesale and retail telecommunications markets in Minnesota.

The 1996 Act, while prohibiting States from creating barriers to entry (Sec. 253(a)) recognizes the right of States to take steps "to protect public safety and welfare" (Sec. 253(b)). In balancing these objectives, the Commission should adopt a standard of reasonableness. It cannot be that *any* action taken by a State which it *asserts* is intended to protect public safety and welfare can be permissible under Sec. 253, but rather only those actions that may be seen as *reasonably related* to protecting public safety and welfare. Thus, it is reasonable that access to the rights-of-way

¹ The Ohio Turnpike Commission and the Iowa Department of Transportation, for example, allow non-exclusive use of its freeway rights-of-way and charge a franchise fee to users. See U.S. Department of Transportation <www.its.dot.gov/docs/sum.htm>.

by carriers be scheduled at particular intervals to meet the State's responsibilities of public safety and minimization of traffic disruption. As a means of minimizing disruption, it is also reasonable for the State to encourage other parties who *currently need* capacity along these routes to contract with the Developer to install fiber for them at the same time the Developer is installing fiber for the State's use. It is not reasonable, however, that access to the interstate highway rights-of-way be restricted to a single installation or that parties be required to go through a single gatekeeper (*i.e.*, the Developer), especially one that will benefit from its ability to resell wholesale capacity and offer retail services in competition with other telecommunications carriers who have built their networks with private capital and without the benefit of exclusive access granted by the State government. This long-term, exclusive arrangement is the critical flaw in the State's Agreement with the Developer.

Section 253(c) requires that States manage the public rights-of-way "on a non-discriminatory basis." In other words, any reasonable restriction on use must also be non-discriminatory. The Agreement fails on this ground as well.

The State's petition implies that the relevant market is the statewide market for wholesale transport fiber capacity. The State, therefore, points to the availability of other rights-of-way throughout the State as sufficient for existing competitors and new entrants (Petition at 20). The State's analysis is seriously flawed. The State has granted, for the first time, exclusive access to the most efficient route among various locations in Minnesota to a single entity. The interstate highway system represents the most direct and least-cost route among the major cities in Minnesota.² Thus, the relevant market is the points served by the interstate highway system in Minnesota. The State has not provided sufficient evidence that alternative facilities exist now or may exist in ten years between all of these points, nor has it demonstrated that the Developer would not be afforded a substantial advantage over other providers of any alternative facilities by virtue of this exclusive

² Mr. Knuth, on behalf of the MTA, provides analysis and estimates of cost differences of fiber installation between alternative routes in Minnesota. He reasonably points out that it is less costly to install cable along an uncluttered, direct and available freeway right-of-way than along a cluttered public highway or busy railroad line. Mr. Knuth's results are consistent with our assertion that the interstate rights-of-way offer the least-cost routes for telecommunications transmission in Minnesota. Mr. Knuth's analysis demonstrates that the cost of installing cables in densely populated areas is greater than in rural areas, and his conclusions are based on an assumed ratio of urban to rural roadway sections. Thus, using the same calculations, it is clear that installation in more heavily populated areas would incur higher costs.

right to the lowest cost routes. The terms of the Agreement are, in effect, an acknowledgment by the State that it is granting the Developer a monopoly in that they include (insufficient) protections for competition (*viz.*, non-discriminatory access). If the contract confers no market power on the Developer, then why include such “safeguards”?

Fiber capacity is location-specific. Fiber in one location cannot necessarily substitute for fiber elsewhere. The whole State is too large to be the relevant market. The State has not shown that there is adequate competing fiber capacity in *each* of the *actual* relevant geographic markets (*i.e.*, on the routes covered by the interstate highway systems). The consequence of this Agreement between the State and the Developer is that a single entity, because of unique favors granted by the State, will become the least-cost provider of fiber capacity among the largest cities in Minnesota.

The State believes that any potentially anti-competitive impacts of its exclusive Agreement with the Developer are mitigated by requirements that the Developer install fiber for others at the same time it installs its own fiber and that the Developer lease capacity to others on a “non-discriminatory basis” after the initial installation (*i.e.*, serve as a “carrier’s carrier”) (Petition at 26). These requirements are inadequate to protect competition and, thus, the arrangement is far from being non-discriminatory as required by the 1996 Act. In fact, the Agreement favors the Developer and puts competitors at a decided disadvantage.

Existing entities that seek to secure capacity along the interstates in order to compete with the Developer will be required to make significant up-front investments well before they have need for the capacity or forego the opportunity to utilize these rights-of-way for ten to twenty years. This up-front investment is a severe penalty and may be economically inefficient if the capacity is not needed for several years.

The exclusive arrangement also is likely to inhibit the entry of future providers. Firms that are not in the market today, but which seek to utilize these low-cost routes are barred from deploying their own facilities for a period of ten to twenty years, except to the extent they are willing to buy and resell any excess capacity the Developer may have at the time. This conflicts with the 1996 Act’s emphasis on facilities-based (rather than resale) competition. Moreover, new entrants may

well find that the Developer has no available capacity because it has leased all excess capacity or is using the capacity for its own retail offerings.³

This exclusive Agreement thus will inhibit innovative service offerings by existing and future carriers. Any modification to existing networks or attempts to build new networks along these low-cost routes are effectively precluded by the State's action. As a result of unnecessarily foreclosing access to this efficient route system, the State may be imposing costs on consumers of telecommunications services that will far outweigh the benefits that the State receives from this Agreement.⁴ By limiting the business opportunities of existing and new providers, the State's Agreement will likely inhibit future telecommunications competition, stifle innovation, and be costly for consumers.

The potential for harm to competition is increased by the fact that, in addition to conferring favored status on the Developer in the wholesale market, the Agreement permits the Developer to provide retail service as well. The State, in its petition, has declared that the Developer's retail affiliate and other entities that purchase capacity will be treated the same. The State's Agreement requires that the Developer "substantiate in written contracts that it charges related users [of its network] and similarly situated unrelated users uniform and nondiscriminatory rates" (Petition at 11). The State's theory appears to be that if the Agreement requires the Developer not to discriminate, then the State action involved is somehow non-discriminatory.

In fact, the conditions imposed by the Agreement are inadequate to protect competing retailers from anti-competitive conduct by the Developer. Much of the potential anti-competitive conduct that may arise from the Agreement centers on the Developer's ability, as the provider of essential facilities, to raise its rivals' costs. The Developer may set the cost of access unreasonably high and, thereby deter entry by competing retailers. At the same time, the Developer could "absorb" the high access costs in its own retail operations. Merely requiring that the Developer not discriminate is not enough.

³ We note that the Developer appears to be under no obligation to expand capacity to meet demand as regulated carriers are. Thus, the non-discriminatory access requirement would be illusory (as well as ineffective).

⁴ The State, having gained usage of the Developer's network for its general communications needs, benefits directly from this Agreement. The State government's benefits, however, will be offset by the costs to Minnesota citizens who purchase intra- and interstate telecommunication services. These citizens will also bear the additional costs of inefficiencies resulting from an anti-competitive policy.

Additionally, the retail affiliate of the Developer may otherwise engage in anti-competitive behavior. For example, the Agreement does not require the Developer to disclose technical information or to notify others of technical changes. Moreover, since the Developer controls the rights-of-way for purposes of maintaining others' installed fiber, its actions affect all existing retailers, not just those which rely on the Developer's facilities. For example, in case of a cable cut, there is no check on the Developer's ability to favor its own retail affiliate in the restoration of service.

The Agreement between the State and the Developer not only provides too little by way of safeguards against anti-competitive behavior, it also does not provide adequate redress to competitors regarding any anti-competitive conduct that may occur. If the Developer is not a telecommunications carrier, as the State's petition argues, then the Minnesota Public Utilities Commission appears to lack jurisdiction.⁵

In sum, the State's efforts to meet its public safety and convenience responsibilities with regard to managing its rights-of-way do not require long-term exclusive access by a single entity. The Agreement in question confers rights on the Developer which are not afforded other parties and thereby is highly discriminatory. The safeguards are ineffective and illusory checks on the Developer's exercise of market power. The Agreement also fails to provide an effective forum for policing the conduct of the Developer.

Telecommunications competition and innovation, in both wholesale and retail markets in Minnesota, will be unnecessarily harmed by the State's Agreement with the Developer. In our opinion, the State has not met its burden under Section 253 of the 1996 Act.

⁵ The State's Agreement with the Developer could be read to suggest that MnDoT will somehow be "the regulator." It is also hard to imagine the State aggressively policing the conduct of its "business partner" with regard to competitors.

HARRY M. (CHIP) SHOOSHAN III

Received a B.A. *magna cum laude* from Harvard University in Government and a J.D. from Georgetown University Law Center.

Before co-founding Strategic Policy Research, Inc. (SPR), Mr. Shooshan served for eleven years on Capitol Hill. He was chief counsel and staff director of the Subcommittee on Communications, U.S. House of Representatives and was active in congressional efforts to reform the nation's communications laws. After leaving government, he participated in the settlement of the Justice Department's antitrust suit against AT&T, subsequently editing a book on the AT&T divestiture.

Mr. Shooshan specializes in communications public policy analysis, regulatory reform, the impact of new technology, local competition and the legislative process. He also advises clients on business strategies and market opportunities.

Mr. Shooshan is the author of numerous studies and articles dealing with issues facing the telephone, broadcasting, public broadcasting, satellite, cable television, motion picture and satellite industries. He is one of the nation's leading authorities on telecommunications infrastructure and its relationship to economic development and to the global competitiveness of U.S. businesses.

Mr. Shooshan has testified before several congressional committees, before the Federal Communications Commission (FCC) and several state commissions. He has also testified as an expert witness in litigation concerning broadcasting, cable and wireless cable, and in proceedings before the Copyright Arbitration Royalty Panel concerning satellite broadcasting. He has also advised clients in international markets, including the United Kingdom, Canada and Jamaica. Mr. Shooshan currently serves as an advisor to the Iowa Utilities Board on issues arising out of implementation of the Telecommunications Act of 1996.

From 1976 to 1991, he was an adjunct professor of law at Georgetown University Law Center, teaching regulation and communications law.

Mr. Shooshan is admitted to practice before the U.S. District Court, the U.S. Court of Appeals and the U.S. Supreme Court.

JOSEPH H. WEBER

Received a Bachelor of Electrical Engineering from Rensselaer Polytechnic Institute, a M.S. in Engineering from George Washington University.

Mr. Weber had almost 30 years of telecommunications experience with AT&T and Bell Labs. He spent a number of years developing methods and theories for designing telecommunications networks at Bell Labs, including management of a group responsible for network configuration planning. He subsequently directed the development of engineering data processing systems at AT&T Long Lines before returning to Bell Labs as Director of Network Services Planning. In this position he was responsible for implementation of the FCC's terminal equipment registration program, and for the functional design of new network services being offered by AT&T.

Mr. Weber moved to AT&T General Departments in 1980, where he became Director of Technical Standards and Regulatory Planning. In this position he was responsible for the technical aspects of all of AT&T's federal regulatory, legal and legislative activities. He was the principal AT&T expert resource in designing the technical parts of the MFJ, the basic document which set out the terms of the AT&T divestiture. During the planning for divestiture he was responsible for establishing interconnection arrangements between AT&T and the BOCs, and for the methods underlying the division of assets.

After divestiture, he served as Director of Network Architecture Planning at AT&T, where he was responsible for the evolving architecture of the intelligent network.

After leaving AT&T, Mr. Weber worked as Vice President of Technology for Global Transactions Systems, a new venture sponsored by AT&T and Telerate to mechanize currency trading communications systems. He then, with some associates, founded T.E.L.A. Group, which provided telecommunications policy, economics and technology consulting services for telephone companies and state commissions, specializing in the development of telecommunications infrastructure plans. He continued these activities as a partner in Weber Temin & Co., which succeeded T.E.L.A. Group.

**STRATEGIC
POLICY
RESEARCH**

7500 OLD GEORGETOWN ROAD SUITE 810 BETHESDA, MARYLAND 20814 301-718-0111 FAX 301-215-4033

EMAIL spri-info@spri.com

PEGGY L. RETTLE

Received B.S. Business Administration, B.A. French Language, and M.S. Economics degrees from Southern Illinois University-Edwardsville.

Prior to joining SPR, Ms. Rettle most recently held the position of Manager of Regulatory Policy with Citizens Telecom, a mid-size local exchange carrier owned by a multi-utility firm. In that position, Ms. Rettle managed the process of internal regulatory policy development, including analysis, interpretation and implementation of the Telecommunications Act of 1996. Additionally, while with Citizens Telecom, Ms. Rettle was an active member of many USTA committees, including the Regulatory Issues and Advocacy Committee that is responsible for developing and advocating industry policy on federal regulatory issues, the most critical of which have been the FCC's "trilogy." Ms. Rettle also actively participated in the Independent Telephone and Telecommunications Alliance of mid-size local exchange carriers. Before joining Citizens Telecom in 1994, Ms. Rettle was an Economic Analyst in the Telecommunications Policy Program with the Illinois Commerce Commission, beginning in 1991. In that position, Ms. Rettle provided expert testimony on policy issues of cost of service, alternative regulation, and local competition.

EXHIBIT 4

AFFIDAVIT OF
KENNETH D. KNUTH

3. While the state trunk highway system right-of-way is available, the cost of placing cable on freeway right-of way is much lower than the cost of placing the cable on state trunk highway right-of-way. The freeway is designed to bypass the obstacles of towns and/or city streets. In addition, nearly all cable placed on freeway right-of-way in Minnesota could be placed for a below average rural placing cost of about \$1.00 to \$1.25 per foot. A route designed on the state highway system generally experiences about 15% town or city type construction and 85% rural construction. The cost of placing a cable in the congested areas, such as urban or city areas, generally costs from \$2.50 to \$5.00 a foot. These costs are solely for placing the cable facilities and do not include the cost of cable, splicing and miscellaneous materials.

4. These placing costs are determined using information from a cost estimating spread sheet developed by Finley Engineering Company whereby ongoing bid prices are incorporated into the spread sheet data base to provide reasonable anticipated prices for future construction.

5. To arrive at the cost for placing a cable on the freeway I assumed the cable would be a direct buried cable placed at a depth of 42 inches. Within each mile there would be 150 feet of typical boring, 1 handhole, 8 warning signs, warning tape, engineering and an average of 5 feet of directional boring. The labor cost for placing the above items is given in the following chart:

<u>Item</u>	<u>Price</u>	<u>Quantity</u>	<u>Extended</u>
Plowing	\$.60 per foot	5,400 ft.	\$3,240
Boring	\$ 6.00 per foot	150 ft.	900
Handhole	\$575.00 each	1	575
Warning Signs	\$ 35.00 each	8	280
Tape	\$.02 per foot	5,400 ft.	108
Directional Bore	\$ 30.00 per foot	5 ft.	150
Engineering	\$600.00 per mile	1	<u>600</u>
Total Per Mile			\$5,853
Per Foot			\$1.08

6. The above freeway cost model can be adjusted to reflect the cost of plowing the same cable on the most rural parts of trunk highway by increasing the plowing cost by \$.10 per foot, increasing the plow footage by 100 feet, and increasing the bore footage by 50 feet. This would increase the total cost to \$6,763 per mile or \$1.23 per foot. This increase would be needed to reflect the different types of construction and additional obstacles.

<u>Item</u>	<u>Price</u>	<u>Quantity</u>	<u>Extended</u>
Plowing	\$.70 per foot	5,500 ft.	\$3,850
Boring	\$ 6.00 per foot	200 ft.	1,200
Handhole	\$575.00 each	1	575
Warning Signs	\$ 35.00 each	8	280
Tape	\$.02 per foot	5,400 ft.	108
Directional Bore	\$ 30.00 per foot	5 ft.	150
Engineering	\$600.00 per mile	1	<u>600</u>
Total Per Mile			\$6,763
Per Foot			\$1.23

7. To arrive at the cost of placing a cable in the town area is much more difficult as there are various degrees of construction difficulty such as leading into a town, at the edge of a town and the heart of a town. The major difference in the cost of town versus rural construction is the cost of placing the cable and the bore footage. The costs calculated below are good for the cost of going through a small town of 2,000 people or less where a mixture of density of 10 homes per mile to about 70 homes per mile is experienced.

<u>Item</u>	<u>Price</u>	<u>Quantity</u>	<u>Extended</u>
Plowing	\$ 1.30 per foot	5,400 ft.	\$ 7,020
Boring	\$ 6.00 per foot	1,056 ft.	6,336
Handhole	\$ 575.00 each	2	1,150
Warning Signs	\$ 35.00 each	8	280
Tape	\$.02 per foot	5,400 ft.	108
Directional Bore	\$ 30.00 per foot	5 ft.	150
Engineering	\$1,300.00 per mile	1	<u>1,300</u>
Total Per Mile			\$16,344
Per Foot			\$3.03

8. For cities of over 2,000 people the plowing cost can increase to \$2.00 per foot and the bore footage would be 1,500 feet per mile reflecting different types of construction and more obstacles. The cost per mile for going through cities over 2,000 people would increase to \$22,788 giving a per foot cost of \$4.22.

<u>Item</u>	<u>Price</u>	<u>Quantity</u>	<u>Extended</u>
Plowing	\$ 2.00 per foot	5,400 ft.	\$10,800
Boring	\$ 6.00 per foot	1,500 ft.	9,000
Handhole	\$ 575.00 each	2	1,150
Warning Signs	\$ 35.00 each	8	280
Tape	\$.02 per foot	5,400 ft.	108
Directional Bore	\$ 30.00 per foot	5 ft.	150
Engineering	\$1,300.00 per mile	1	<u>1,300</u>
Total Per Mile			\$22,788
Per Foot			\$4.22

9. Based on my experience in designing and supervising long distance routes, a route along a state highway system would experience 15% town type construction and 85% rural construction. Town construction as used in this paragraph is any construction where a large tractor pulled direct buried cable plowing operation can not be used because of home density, driveways, and the presence of other utilities.

10. Homes tend to be built along highways leading into small towns for some distance outside of those towns. These homes and their driveways and the introduction of other utilities like buried gas, electric, CATV, sewer and water require town type construction thereby increasing costs. I have found that it will require at least 2,500 feet of town construction to pass through even the smallest of towns. The amount of town construction required is proportional to the size of the town with a city of 50,000 population causing a possible 10 miles of town type construction. A greater negative impact can result if major population centers are passed through.

11. The freeway system was constructed by following the shortest distance between population centers. The state trunk highway system does not make use of near as many angles and has more of a tendency to follow section lines. The company using the freeway right-of-way will enjoy a cost saving over a company using the state highway system and other route paths because less route miles will need to be built to provide facilities between the population centers. Based on

my experience and review of Exhibit 17 to the State Petition showing freeways and trunk highways, I estimate that approximately 10% more route mileage will be needed to connect communities along a freeway by using trunk highways as an alternative.

The 10% increase in route miles is consistent with my review of the freeway and trunk highway alternatives for a Minneapolis/Fargo route and the Minneapolis/Duluth route.

<u>Route</u>	<u>Route Miles</u>		<u>% Increase</u>
	<u>Interstate</u>	<u>Trunk Highway</u>	
Minneapolis/Fargo	224	241	7.6
Minneapolis/Duluth	<u>128</u>	<u>147</u>	<u>14.8</u>
Total	352	388	10.2

The attached table shows the cost impact of higher costs on the state trunk system plus indirect routing for each of the Minneapolis/Fargo and Minneapolis/Duluth routes. Costs for Minneapolis/Fargo are 59% higher. Costs for Minneapolis/Duluth are 70% higher.

12 The use of railroad right-of-way is possible, but is cost prohibitive. The typical up front cost to obtain permission to place cable on railroad right-of-way is \$8,000 per mile. A second cost associated with placing a cable on the railroad right-of-way is the cost of railroad personnel to insure the safety of the construction crews. A flagman employed by the railroad company and paid for by the company placing cable is generally required with each construction crew. Also, considerable working time is lost each day if cable is being placed along a busy railroad track as when trains are passed through the construction area the construction crews have to stop work and move a safe distance from the tracks.

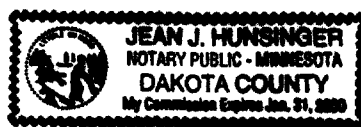
13. The right-of-ways used for pipelines and power lines are obtained by getting easements from the various landowners along the route. These easements are usually written so only the pipeline or power line can be placed on the easement. Because of this, it is necessary to completely repeat the easement process and get permission from the landowners to place a fiber cable on their land. This process is time consuming and often only limited success is obtained as failure to get any one easement can prevent the construction of the entire route. The cost to obtain easements from private landowners for placing fiber optic cable is very similar to the cost of purchasing right-of-way from the railroad.

Signed *Kenneth D. Knuth*
Kenneth D. Knuth, P.E.

Date *March 6, 1998*

Subscribed and sworn to before me on *March 6, 1998*

Jean J. Hunsinger
NOTARY PUBLIC



**CABLE PLACING COSTS
MINNEAPOLIS / FARGO ROUTE**

Type (Total Miles)	Miles	x Costs/Mile	= Total Cost to Construct
Interstate Highway (224 miles)		\$5,853	\$1,311,072
Trunk Highway (241 miles)			
-85% Rural	205	\$6,753	\$1,384,365
-15% Town (1/2 smallest town)	18	\$16,344	\$294,192
(1/2 larger town)	18		\$410,184
TOTAL	241 MILES		\$2,088,751

Conclusion: \$777,669 (59%) more placing costs will result from use of trunk highways.

**CABLE PLACING COSTS
MINNEAPOLIS / DULUTH ROUTE**

Type (Total Miles)	Miles	x Costs/Mile	= Total Cost to Construct
Interstate Highway (224 miles)	128	\$5,853	\$749,184
Trunk Highway (241 miles)			
-85% Rural	125	\$6,753	\$844,125
-15% Town (1/2 smallest town)	11	\$16,344	\$179,784
(1/2 larger town)	11		\$250,688
TOTAL	147 MILES		\$1,274,577

Conclusion: \$525,393 (70%) more cable placing costs will result from use of trunk highways.

EXHIBIT 5

Guidance

on Sharing Freeway and Highway Rights-of-Way for Telecommunications

AASHTO Task Force on Fiber Optics
on Transportation Rights-of-Way

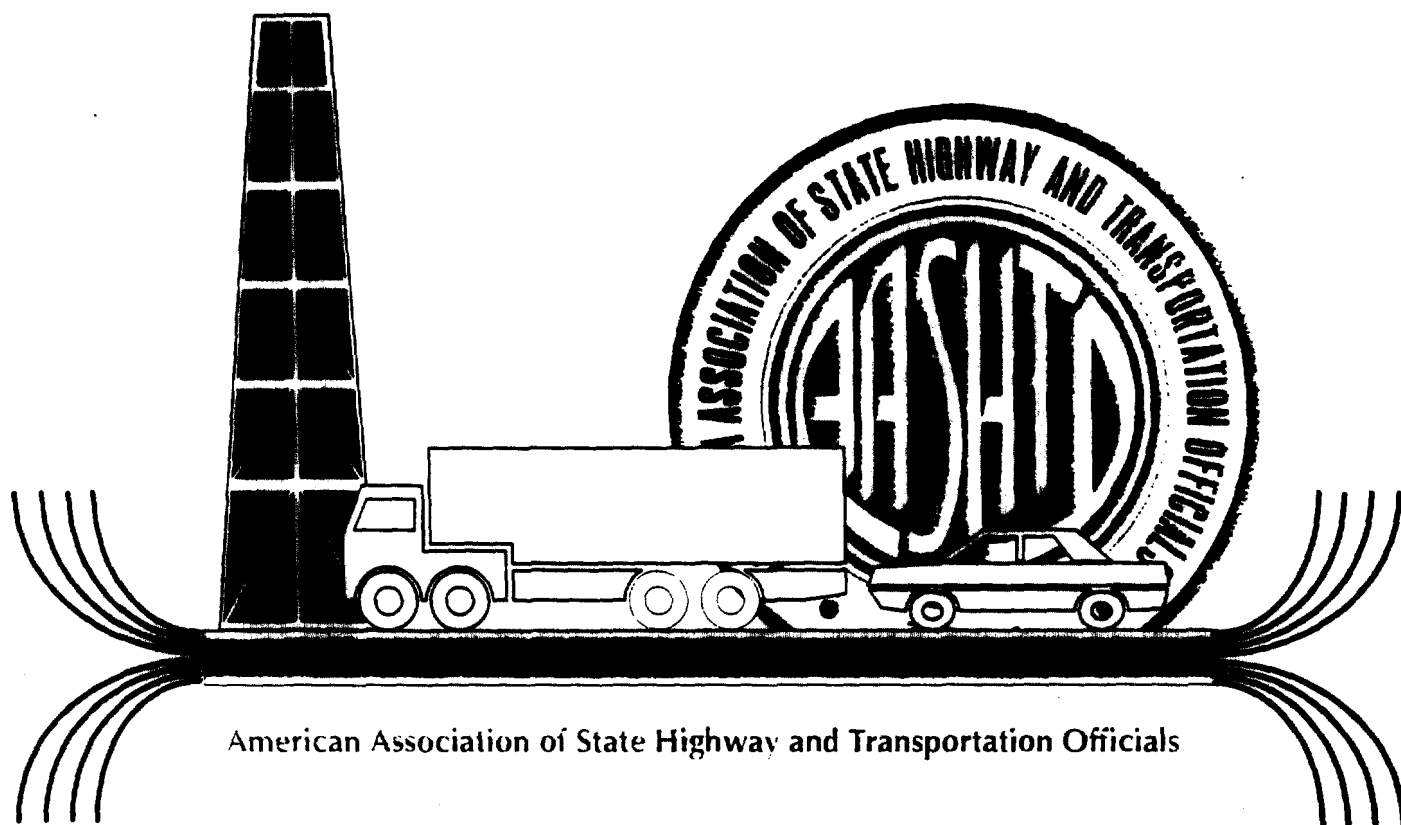


American Association of State Highway and Transportation Officials

Guidance

on Sharing Freeway and Highway Rights-of-Way for Telecommunications

**AASHTO Task Force on Fiber Optics
on Transportation Rights-of-Way**



American Association of State Highway and Transportation Officials
